

L 00260-66

ACCESSION NR: AP5013485

CZ/0088/85/001/001/0086/0081

AUTHOR: Machu, J. (Engineer, Candidate of sciences)
Nadvornik, P. (Docent, Doctor, Candidate of sciences)

25
B

TITLE: Electronic model of a neuron according to N. E. Wedensky

SOURCE: Kybernetika, v. 1, no. 1, 1965, 56-61

TOPIC TAGS: neuron, electronic simulation

ABSTRACT: Those properties of the neuron which can be described by the characteristic relation $F_2 = f(F_1)$ between the frequencies of the input and output signals were simulated on the basis of Wedensky's theory of nerve cell function. In the graphic representation, the course of the function corresponds to the stage of inhibition and to the stage of transmission of excitation. The electronic model was designed so that in addition to the function, it simulates even some anticipated structural and energetic properties of the cell. In the design of the model of the biological neuron, there is a tendency to interpret the integration input circuits as the memory elements and the inhibition as the protective mechanism of the cell. The model itself was prepared in two variants: an electronic one and a transistorized one, both of which permit a better utilization of the electrochemical elements

Card 1/2

I. 00260-66

ACCESSION NR: AP5013485

of the memory. Orig. art. has: 3 figures.

ASSOCIATION: None

SUBMITTED: 22Jun64

ENCL: 00

SUB CODE: LS, EC

NO REF SOV: 000

OTHER: 002

Card 2/2

NEUROVIRUS, Laval, 1961, 1962, 1963,

Conferences on the model of the cyclic neurons. Vyskumetika 1 no 1.
1965.

L 00096-66

ACCESSION NR: AP5012868

CZ/0088/65/000/002/0180/0183

AUTHOR: Drozen, Vladimir (Doctor); Nadvornik, Pavel (Docent, Doctor, Candidate of sciences) ^{31B}

TITLE: Variant of the electronic model of the neuron according to N. E. Wedensky

SOURCE: Kybernetika, no. 2, 1965, 180-183

TOPIC TAGS: neuron, electronic simulation

ABSTRACT: The model described of a biological neuron in a transistorized form permits a study of the relation between the amplitude and the frequency of the input signal and their influence on the responsiveness of the nerve cell. It reflects the relationship between two evolutionary degrees of information transmission, i.e., between the stationary excitation and the excitation wave which figure prominently in Wedensky's theory. The model employed does not truly represent the individual neuron as an active source of impulses, but simulates the overall behavior of a certain function of the nervous system. Functional analysis of the input indicates that the frequency modulation impulses may have a variable amplitude even when the input amplitude remains the same. Orig.

Card 1/2

L 00096-66

ACCESSION NR: AP5012868

art. has: 4 figures.

ASSOCIATION: Drozen Kyberneticky kabinet zdravotnickych ustavu, Fakultni nemocnice, Hradc Kralove (Cybernetics Laboratory, Institute of Public Health, Department of Pathology); Nadvornik Neurochirurgicka klinika fakultni nemocnice, Hradec Kralove (Neurosurgery Clinic, Department of Pathology)

SUBMITTED: 22Jun64

ENCL: 00

SUB CODE: LS, EC

NO REF SOV: 001

OTHER: 002

Card
2/2

L 13143-66

ACC NR: AP6005684

SOURCE CODE: CZ/0079/65/007/002/0193/0193

AUTHOR: Pelikan, V.; Nadvornik, P.

ORG: Psychiatric and Neurosurgical Clinic, Medical Faculty, Charles University,
Hradec Kralove

TITLE: Theory of graphs and pathophysiological interpretation of mental disorders
[This paper was presented at the Third Interdisciplinary Conference on Experimental
and Clinical Study of Higher Nervous Functions held in Marianske Lazne from 19 to
23 October 1964]

SOURCE: Activitas nervosa superior, v. 7, no. 2, 1965, 193

TOPIC TAGS: pathology, physiology, psychneurotic disorder

ABSTRACT: The authors attempted to analyze clinical observations and prepare a
graphical interpretation of the findings that would allow a generalization of
such pathophysiological mechanisms as verbal structures, behavior, and thinking.
Orig. art. has: 1 figure. [JPRS]

SUB CODE: 06, 05 / SUBM DATE: none

Card 1/1 HW

MACH, J.; KROULIK, J.; KOSTELNIK, J.; NADVORNIK, P.

Pulmonary candidiasis. Vnitřní lek. 11. ročník 1964-1965.
O 1965.

1. Vnitřní oddělení nemocnice Cereva Voda, Obvodní ústav
národního zdraví Ústí n. Orli. (prednosta dr. Jan Mach, příloha
lečebna Zámek (reditel dr. František Myšlil, Patologické
anatomické oddělení nemocnice Litomysl (prednosta dr. Josef
Kostelník) a Mikrobiologické oddělení (kresla. hygienicko-
epidemiologické stanice Litomysl (prednosta prom. lek. Jarek
Nadvorník).

NADVORNIK, P.; PAROUJEK, Z.

A study on the occurrence of pertussis and parapertussis among the population of the Svitavy district, and the experience with these diseases in the district. Cesk. epidem. 14, no.6:346-354 N '65.

1. Mikrobiologické oddělení Okresní hygienicko-epidemiologické stanice Svitavy se sídlem v Litomyšli a Protiepidemické oddělení Okresní hygienicko-epidemiologické stanice, Svitavy.

NADVORNIK, Pavel, doc. MUDr.

Cybernetic models of a nerve cell. Sborn. ved. prac. lek. fak.
Karlov. Univ. (Hrad. Kral.) 7 no.5:Suppl.:427-428 '64.

Vvedenskii's theory of the function of the neuron. Ibid.:433-
434

1. Neurochirurgická klinika fakultní nemocnice Krajského ústavu
národního zdraví, Hradec Králové (prednosta prof. MUDr. R. Petr).

KRAL, Ladislav; PECHACEK, Miroslav; NADVORNIK, Pavel; VONDRACKOVA, Anna

Results of long-term observations of patients following tick-borne encephalitis. Sborn. ved. prac. lek. fak. Karlov. Univ. 8 no.5: 545-553 '65.

1. Infekční klinika (prednosta - prof. MUDr. J. Ondracek);
Neurochirurgická klinika (prednosta - prof. MUDr. R. Pet-)
a Ústav lékařské mikrobiologie (prednosta - MUDr. O. Vejborna)
Krejského ústavu národního zdraví v Hradci Králové.

L 30728-66

ACC NR: AP6022103

SOURCE CODE: CZ/0039/65/026/012/0701/0708

AUTHOR: Macki, Jiri (Candidate of sciences; Engineer); Nedvornik, Pavel (Docent; Doctor of medicine, Candidate of sciences); Vesely, Ctibor (Doctor of medicine; Candidate of sciences)

ORG: Department of Physics, Neurosurgical Clinic, Charles University, Hradec Kralove (Katedra fyziky neurochirurgicka klinika Karlovy university); Department of Physiology, Medical Faculty, Charles University, Hradec Kralove (Katedra fyziologie, lekarske fakulty, Karlovy university)

TITLE: Modelling a neuron 22

SOURCE: Slaboproudy obzor, v. 26, no. 12, 1965, 701-708

TOPIC TAGS: neuron, morphology, physiology, anatomic model

ABSTRACT: The paper describes recent problems connected with modelling the neuron as the basic element for processing information within the nervous system. The morphological and physiological properties are shown; they are important for modelling. It also is shown how those properties have been modelled experimentally until now. Models described in the literature are evaluated and some new methods are pointed out which should be used for neuron model research so as to bring them nearer to the properties of real neurons and to make them really helpful in investigation of properties of the nervous system. Orig. art. has: 10 figures. [Based on authors' Eng. abst.] [JPRS]

SUB CODE: 06 / SUBM DATE: 11Feb65 / ORIG REF: 003 / SOV REF: 001 / OTH REF: 015

Card 1/1^V

UDC: 615.621.3

NADVORNIK, P.; PETR, R.; REZAC, O.; SCHINDLERY, C.

A few remarks on the methods of stereotaxic operations. Cesk.
neuroi. 28 no.6:408-411 N '65.

1. Neurochirurgická klinika lékařské fakulty Karlovy University
v Hradci Králové (prednosta: prof. dr. R. Petr.).

MENSIKOVA, Z.; ROZSIVAL, V.; NADVOENIK, P. Technicka spoluprace
KALISTOVA, I.

Clinical and electroencephalographic picture of disturbances of
consciousness (comatose, semicomatose, amental, delirious and
somnia). Comparison with the EEG of physiological sleep.
Cesk. neurol. 28 no.6:429-443 N '65.

1. Neurochirurgicka klinika lebarske fakulty Karlovy University
v Hradci Kralove (prednosta - prof. dr. R. Petr).

NADVORNIK, P.; NEMECEK, S.; BEBAN, J.; HOLSTVAL, V.

Clinical and anatomical correlations in injuries of the cervical spinal cord. Rozhl. chir. 44 no.9:641-647 S 165.

1. Neurochirurgická klinika lékařské fakulty Karlovy University v Hradci Králové (prednosta prof. dr. K. Petr).

CZECHOSLOVAKIA

NEMECEK, S.; PETR, R.; SPACEK, J.; NADVORNIK, P.; Neurosurgical Clinic (Neurochirurgická Klinika) Head (Prednosta) Prof Dr R. PETR, Chair of Histology and Embryology (Katedra Histologie s Embryologií) Head (Vedoucí) Prof Dr V. VRTIS, Medical Faculty, Charles University (Lek. Fakulta KU), Hradec Králové.

"Microscopic Findings in the Acoustic Nerve and in Acoustic Neurinoma."

Prague, Ceskoslovenska Neurologie, Vol 29, No 5, Sep 66, pp 289-292

Abstract /Authors' English summary_: It is important to operate on acoustic neurinoma as early as possible and to determine the origin and microstructure of these tumors. A survey of the histological, histochemical, and electronoptic findings made by the authors is presented. 4 Figures, 9 Western, 4 Czech, 1 East German reference.

1/1

38

Neurology

CZECHOSLOVAKIA

NADVORNIK, P.; OSCADAL, A.; CERNY, J.; Neurosurgical Clinic, Medical Faculty, Charles University (Neurochirurgická Klinika Lek. Fak. KU), Hradec Kralove, Head (Prednosta) Prof Dr R. PETR; Neurological Department Okresni Institute of National Health (Neurologické Odd. OUNZ), Havlickuv Brod, Head (Vedouci) Dr A. OSCADAL.

"Diencephaloschisis."

Prague, Ceskoslovenska Neurologie, Vol 29, No 5, Sep 66, pp 331 - 332

Abstract [Authors' English summary]: Diencephaloschisis is a rare anomaly of the brain; in the past it was known only from autopsies. The authors describe a live patient, in whom the disease was diagnosed by pneumoencephalographic examination. Its manifestations are similar to suprasellar expansion; this is different from the fissure of the hypothalamus. 1 figure, 1 Western reference.

CZECHOSLOVAKIA

NADVORNIK, P.; Neurological Clinic, Medical Faculty, Charles University (Neurologická Klinika Lékařské Fakulty KU), Hradec Kralove.

" Basic Biological Neuron Networks and Their Modelling. 1. The Diffuse Nervous System."

Prague, Activitas Nervosa Superior, Vol 8, No 3, Sep 66, pp 282 - 287

Abstract: Neuron elements in primitive forms of animal life are discussed. Transformation of epithelium cells into sensory cells is described. Formation of neuron networks in developing forms of animal life is discussed. Stimuli of the primitive nervous networks are described. Basic laws that must be reproduced by the models of the nervous networks are discussed. The importance of simulating coordination and dampening mechanisms is described. The models should reproduce the ability of the nerves to connect any given two elements and reproduce the fact that the cells do not have a uniform function but are differentiated. A basic element of such mechanism is a ganglion cell. 1 Figure, 11 Western, 3 Czech, 1 Russian reference.

1/1

CZECHOSLOVAKIA

NADVORNIK, P.; Neurological Clinic, Medical Faculty, Charles University (Neurologická Klinika Lékařské Fakulty KU), Hradec Králové.

"Basic Biological Neuron Networks and Their Modelling. 2. The Ganglion Nervous System."

Prague, Activitas Nervosa Superior, Vol 8, No 3, Sep 66, pp 287 - 293

Abstract: In primitive animals the nervous network is concentrated around the mouth opening. The main nervous ganglia are located around the primary mouth. In higher forms of life such as worms the nervous system is arranged circularly to correspond to the shape of the animal's body. Formation of a protective layer of chitin or calcium carbonate for the CNS is discussed. In some primitive invertebrates there are only 162 nerve cells; the more developed ones have up to 500 million of these cells. All ganglion centers can be classified as : lower motor centers, intermediate motor centers, higher motor centers, receptor systems, and systems of motivation control. The location of these centers in various parts of the body is discussed. 13 Western, 3 Czech, 1 Russian reference.

- 37 -

L 45946-66

ACC NR: AP6018273

SOURCE CODE: CZ/0088/65/000/006/0551/0559

AUTHOR: Macků, Jirí (Engineer, Candidate of science); Nádvorník, Pavel (Docent, Doctor, Candidate of science); Veselý, Ctibor (Doctor, Candidate of science)

ORG: Faculty of Medicine, KU, Hradec Králové (lékařská fakulta KU)

TITLE: Model of a ²²neuron with self-organizing capacity [Paper presented at the Seminar of the Main Commission of Cybernetics Problems in Biology and Medicine attached to the Ministry of Health held in Prague from 22 to 23 April 1965]

SOURCE: Kybernetika, no. 6, 1965, 551-559

TOPIC TAGS: neuron, cybernetics, self organizing system

ABSTRACT: This is the text of a lecture presented at a Seminar of the Commission for Cybernetics in Biology and Medicine attached to the Ministry of Health. The authors propose an electronic model of a neuron. The model represents more accurately the properties of a real neuron according to the present concepts than the models described previously. The most important property of the new model is its self-organizing capacity made possible by its memory. This self-organizing capacity influences the threshold according to the processed signals and provides for a spontaneous reorganization of the network from the original monistic network to

Card 1/2

L 45946-66

ACC NR: AP6018273

a dualistic network. Memory is now attributed to synaptic inputs of a neuron and, consequently, synapsis must be modeled differently than it has been done so far. The authors try to solve the problem by switching from the monistic to the dualistic interpretation of the self-organizing capacity of the neuron. In the primary stage the model has the properties of a monistic element. After a certain time the monistic network is changed to a dualistic one in which the passages which process signals of medium intensity increase their permeability, while transmission elements receiving intensive signals will close the way to all signals. Orig. art. has: 6 figures.

SUB CODE: 05,06/ SUBM DATE: 29Apr65/ ORIG REF: 003/ OTH REF: 002

Card 2/2 hs

CZ/0088/65/000/006/0551/0559

AUTHOR: Macků, Jiří (Engineer, Candidate of science); Nádvořník, Pavel (Docent, Doctor, Candidate of science); Veselý, Ctibor (Doctor, Candidate of science)

ORG: Faculty of Medicine, KU, Hradec Králové (lékařská fakulta KU)

TITLE: Model of a neuron with self-organizing capacity [Paper presented at the Seminar of the Main Commission of Cybernetics Problems in Biology and Medicine attached to the Ministry of Health held in Prague from 22 to 23 April 1965]

SOURCE: Kybernetika, no. 6, 1965, 551-559

TOPIC TAGS: neuron, cybernetics, self organizing system

ABSTRACT: This is the text of a lecture presented at a Seminar of the Commission for Cybernetics in Biology and Medicine attached to the Ministry of Health. The authors propose an electronic model of a neuron. The model represents more accurately the properties of a real neuron according to the present concepts than the models described previously. The most important property of the new model is its self-organizing capacity made possible by its memory. This self-organizing capacity influences the threshold according to the processed signals and provides for a spontaneous reorganization of the network from the original monistic network to

ACC NR: 1034702

SOURCE CODE: CZ/0082/65/028/006/0408/0411

AUTHOR: Nadvornik, P.; Petr, R.; Rezac, O.; Schindlery, C.

ORG: Neurosurgical Clinic, Medical Faculty, Charles University/headed by Professor, Doctor R. Petr/, Hradec Kralove (Neurochirurgicka klinika lekarske fakulty KU); [Nadvornik] Faculty Hospital, Hradec Kralove (Fakultni nemocnice)

TITLE: Several suggestions for improved methods of stereotactic operation

SOURCE: Ceskoslovenska neurologie, v. 28, no. 6, 1965, 408-411

TOPIC TAGS: tracer study, surgery, gland

ABSTRACT: [Authors' English summary modified]: On the basis of a study of 162 stereotactic X-rays, the authors suggest changing the auxiliary point in hypophysectomy to a point closely anterior to the tuberculum so as to reduce the dispersion angle above the sellar diaphragm. A stereotactic map showing the relationship of the 3rd ventricle or the chiasma to the sella is shown; this may be used to find the position of isotopes placed in the sella. Correlation of X-ray and anatomical foramen of Monroe is presented and the use of its lower edge as reference point recommended. A method of computing coordinates of subcortical structures is described. A simplified method of finding individual points in the anterior complex of thalamic nuclei is discussed. Orig. art. has: 3 figures.

[JPRS]

SUB CODE: 07, 06 / SUBM DATE: none / OTH REF: 006

Card 1/1

0971 1331

L 07913-67

ACC NR: AP6031226

SOURCE CODE: CZ/0088/66/000/005/0435/0439 17

AUTHOR: Nadvornik, Pavel (Docent; Doctor of medicine; Candidate of sciences);
Matejicek, Vaclav (Doctor of medicine; Hradec Kralove); Votruba, Antonin
(Engineer); Houda, Vaclav (Graduate mathematician; Prague); Drozen, Vladimir
(Doctor; Hradec Kralove)

ORG: [Nadvornik; Matejicek] Neurosurgical Department, Faculty of Medicine,
Hradec Kralove (Neurochirurgicka klinika lekarske fakulty); [Votruba; Houda]
Division of Automation, UME, Prague (Utvar automatizace, UME); [Drozen]
Pedagogical Faculty, Hradec Kralove (Pedagogicka fakulta)

TITLE: Diagnostic work by an LGP 30 computer

SOURCE: Kybernetika, no. 5, 1966, 435-439

TOPIC TAGS: computer application, nervous system disease, medical science

ABSTRACT: Diagnosis of neurosurgical diseases by an LGP 30 computer has been
experimentally tested at the Neurosurgical Department of the Faculty of Medicine
in Hradec Kralove. The probability matrix for the computer work was designed and
based on a statistical evaluation of 150 case histories of the department in which

Card 1/2

L 07913-67

ACC NR: AP6031226

56 different diseases have been established from 60 clinical findings (symptoms). Bayes equations were utilized in the program. For satisfactory results the computer had to name the correct diagnosis as first or second item among five possibilities. The machine succeeded in 108 cases, i. e., in 72.6% of patients. This result equals the diagnostic work of medical specialists in outpatient departments, and proves better than that of emergency and district medical practitioners. Orig. art. has: 3 tables and 1 formula.

SUB CODE: 06, 09/ SUBM DATE: 11Dec65/ ORIG REF: 003/

Card 2/2 vmb

ACC NR: AP6034703

SOURCE CODE: CZ/0082/65/028/006/0429/0443

AUTHOR: Mensikova, Z.; Rozsival, V.; Nadvornik, P.

ORG: Neurosurgical Clinic Medical Faculty, Charles University/headed by Doctor, Professor R. Petr/, Hradec Kralove (Neurochirurgicka klinika lekarske fakulty KU); [Mensikova] Faculty Hospital, Hradec Kralove (Fakultni nemocnice)

TITLE: Clinical and EEG picture of disturbances of consciousness (comatose, semicomatose states, confusion, delirium and drowsiness) [This paper was presented at the Czech-Polish EEG Symposium held in Sopot, Poland in 1964.]

SOURCE: Ceskoslovenska neurologie, v. 28, no. 6, 1965, 429-443

TOPIC TAGS: EEG, central nervous system, medical research, human ailment

ABSTRACT: [Authors' English summary modified]: 76 EEG of 59 patients were evaluated; among the patients, 18 were comatose, 13 semicomatose, 6 confused and delirious, and 24 drowsy. 22 cases were verified by operation and 28 by autopsy. In 26 patients vascular lesions were found, and in 14 expanding lesions. In recordings, focal signs were recognized most easily in drowsiness, but could not be discerned in comatose states. It was not possible to find intermittent rhythms during deep unconsciousness, mainly when there was zero activity in semicoma and drowsiness. EEG was similar to stages of sleep; phasic alternations were noticed in less severe disturbances of consciousness. In comatose and semicomatose states there was similarity to deep sleep, in drowsiness to light sleep, and in slight disturbances to initial stages of sleep. The technical coordination was done by I. Kalistova.

Orig. art. has: 8 figures. [JPRS: 34,161]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 004 / OTH REF: 005

Card 1/1

0921 1337

ACC NR: AP6032761

SOURCE CODE: CZ/0079/66/008/003/0282/0287

AUTHOR: Nadvornik, P. (Hradec-Kralove)

ORG: Neurological Clinic, Medical College, KU, Hradec Kralove (Neurologicka klinika
lekarske fakulty KU)

TITLE: Diffused nervous systems

SOURCE: Activitas nervosa superior, v. 8, no. 3, 1966, 282-287

TOPIC TAGS: nervous system, anatomy, cell physiology, zoology

ABSTRACT: Early hypotheses about nerve-like reactions in sponges, branchiata, and hydrozoans are summarized and the term "diffused nervous system" discussed. The anatomy of a polyp is described, its motion toward light and search for oxygen indicating some form of light-sensitive organ and chemical receptors even though it has not been possible to distinguish their form. These may be in the slender hairs which protrude from cells lining its enteric cavity or in the tentacles surrounding its mouth. The polyp's nervous system consists of certain epithelial cells which have been converted to sensory cells and react chiefly to touch. These neuroepithelial cells expand at the base and contain a typical nucleus with nerve fibers attached. In the subepithelium these fibers join bipolar or multi-polar ganglia to form a plexus directly connected with the primitive muscular elements. The relation of this nerve system with the polyp's cnidoblast has not been established. Although these sting cells have a

Card 1/2

ACC NR: AP6032761

reflex reaction, this may be a direct reaction to mechanical or chemical stimuli and independent of any nervous reaction. The medusa, particularly the scyphozoan, has a more complex anatomy and nervous system. Its ectoderm has epithelial cells, including light-sensitive elements, ocelli with sensory cells, and statocysts. Its nerve system is in the mezoglea and consists of an outer layer of bipolar cells and an inner layer of multi-polar cells, with a plexus in the medusa head connected with ganglia in the entoderm. Around the bell circumference nerve fibers are concentrated in two rings, the upper ring, just under the epithelium, is the afferent sector of its nervous system and has sensory fibers leading from the statocysts and primitive eyes. The lower ring has fibers running from the upper ring and from eight rhopalia located around the circumference of the medusa head. It is composed of ganglia governing the longitudinal muscular system, which is then described in detail to explain its rhythmic motion. Orig. art. has: 1 figure.

SUB CODE: 06/ SUBM DATE: none/ ORIG REF: 003/ SOV REF: 001/ OTH REF: 011

Card 2/2

ACC NR: AP6032762

SOURCE CODE: CZ/0079/66/008/003/0287/0293

AUTHOR: Nadvornik, P. (Hradec Kralove)

ORG: Neurological Clinic, Medical College, KU, Hradec Kralove (Neurologicka klinika lebarske fakulty KU)

TITLE: Ganglionic nervous systems

SOURCE: Activitas nervosa superior, v. 8, no. 3, 1966, 287-293

TOPIC TAGS: nervous system, zoology, physiology, anatomy, nerve fiber

ABSTRACT: The lower invertebrates, such as worms and particularly mollusks, have nerve ganglia localized in their anterior segments, about the mouth and digestive tracts. These are connected with receptors such as statocysts, chemical sensors, and eyes. Nerve fibers form rings about the oesophagus and coelum, with paired ganglia grouped in a very primitive cerebral center. The supra-oesophagal nerve system is related with searching for and ingurgitation of food; the suboesophagal or ventral system with motor, digestive and circulatory activity. The lower flatworms have two head ganglia, a bilobate brain connected by a commissure. From the oesophageal ring several nerve links run backward, two along the back, two ventral, and two along the edge of the body. The ventral strips increase in size and in higher worm types develop brain knots, e.g., nemertian ribbon worms have a quadrilobal brain consisting of two back ganglia and two ventral, while nemathelminths and trochlinths have additional

Card 1/2

ACC NR: AP6032762

lateral pairs, called leg ganglia. The higher worms, analids and tentaculata, have a nervous system related with their body segmentation and located in the mesoderm as cells in pouches between the somatopleura and the coleum. These cells are interconnected by longitudinal and lateral commissures in the form of a ladder, and called an orthogonal system. The evolution of these nervous systems is traced through the larval stages of lower invertebrates, such as the gastropods, amphineura, scaphopoda, and cephalopoda. The final example is a detailed study of the nervous system of the octopus with some 500 million nerve elements (300 million in its arms and 200 million neurons in its brain) all interconnected in some 50 major ganglia, chiefly to govern its motor reactions. Its receptor system is both ocular and chemico-tactile, connected to the lobus bucalis and lobus frontalis, which contain about 5 million nerve elements. The ocular system is described in considerable detail. Orig. art. has: 1 figure.

SUB CODE: 06/ SUBM DATE: none/ ORIG REF: 003/ SOV REF: 001/ OTH REF: 011

Card 2/2

CZECHOSLOVAKIA

CZ/0079/66/008/003/0282/0287

AUTHOR: Nadvornik, P. (Hradec-Kralove)

ORG: Neurological Clinic, Medical College, KU, Hradec Kralove (Neurologicka klinika lekarske fakulty KU)

TITLE: Diffused nervous systems

SOURCE: Activitas nervosa superior, v. 8, no. 3, 1966, 282-287

TOPIC TAGS: nervous system, anatomy, cell physiology, zoology

ABSTRACT: Early hypotheses about nerve-like reactions in sponges, branchiata, and hydrozoans are summarized and the term "diffused nervous system" discussed. The anatomy of a polyp is described, its motion toward light and search for oxygen indicating some form of light-sensitive organ and chemical receptors even though it has not been possible to distinguish their form. These may be in the slender hairs which protrude from cells lining its enteric cavity or in the tentacles surrounding its mouth. The polyp's nervous system consists of certain epithelial cells which have been converted to sensory cells and react chiefly to touch. These neuroepithelial cells expand at the base and contain a typical nucleus with nerve fibers attached. In the subepithelium these fibers join bipolar or multi-polar ganglia to form a plexus directly connected with the primitive muscular elements. The relation of this nerve system with the polyp's cnidoblast has not been established. Although these sting cells have a

1/2

CZECHOSLOVAKIA

Hydrobiology

CZ/0079/66/008/003/0287/0293

AUTHOR: Nadvornik, P. (Hradec Kralove)

ORG: Neurological Clinic, Medical College, KU, Hradec Kralove (Neurologicka klinika
lekarske fakulty KU)

TITLE: Ganglionic nervous systems

SOURCE: *Activitas nervosa superior*, v. 8, no. 3, 1966, 287-293

TOPIC TAGS: nervous system, zoology, physiology, anatomy, nerve fiber

ABSTRACT: The lower invertebrates, such as worms and particularly mollusks, have nerve ganglia localized in their anterior segments, about the mouth and digestive tracts. These are connected with receptors such as statocysts, chemical sensors, and eyes. Nerve fibers form rings about the oesophagus and coelum, with paired ganglia grouped in a very primitive cerebral center. The supra-oesophagal nerve system is related with searching for and ingestion of food; the suboesophagal or ventral system with motor, digestive and circulatory activity. The lower flatworms have two head ganglia, a bilobate brain connected by a commissure. From the oesophageal ring several nerve links run backward, two along the back, two ventral, and two along the edge of the body. The ventral strips increase in size and in higher worm types develop brain knots, e.g., nemertian ribbon worms have a quadrilobal brain consisting of two back ganglia and two ventral, while nemathelminths and trochilminths have additional

1/2

lateral pairs, called leg ganglia. The higher worms, analids and tentaculata, have a nervous system related with their body segmentation and located in the mesoderm as cells in pouches between the somatopleura and the coleum. These cells are interconnected by longitudinal and lateral commissures in the form of a ladder, and called an orthogonal system. The evolution of these nervous systems is traced through the larval stages of lower invertebrates, such as the gastropods, amphineura, scaphopoda, and cephalopoda. The final example is a detailed study of the nervous system of the octopus with some 500 million nerve elements (300 million in its arms and 200 million neurons in its brain) all interconnected in some 50 major ganglia, chiefly to govern its motor reactions. Its receptor system is both ocular and chemico-tactile, connected to the lobus bucalis and lobus frontalis, which contain about 5 million nerve elements. The ocular system is described in considerable detail. Orig. art. has: 1 figure.

2/2

- 15 -

NADVORNIK, R.

(3)
Analysis of chlorosulfonic acid by direct determination of
the monohydrate (HSO_3Cl). R. Nadvornik and V. Bátor
(Výskumný ústav sýrom. technol., Bratislava, Czech.)
Chem. Zvesti 7, 217-23 (1953).—A distn. method at 800-
700 mm. Hg vacuum based on a sample of 0.5-0.8 g.
of HSO_3Cl is given. The app. is described. Jan Micka

Chemické Zvesti, Bratislava

CZECHOSLOVAKIA / Chemical Technology, Chemical Products and Their Application, Part 3. - H
Pesticides.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 62039.

Author : Robert Nadvornik, Miroslav Toman, Milan Sterba.
Inst : Not given.
Title : Study of Structure and Stabilization of Bordeaux Mixture.

Orig Pub: Polnohospodarstvo, 1957, 4, No 5, 1009 - 1016.

Abstract: The effects of the ratio of $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ to CaO and of stabilizer additions on the sedimentation and alteration of the microscopic structure of precipitates in the Bordeaux Mixture were studied. The presence of film formations in fresh precipitates and of spherocrystals in

Card 1/2

NALVORNIK, E.; BERAN, J.; HEMPEK, S.; ROZSIVAL, V.; MANFERN, E.; CASHILL, J.

Clinical and anatomical correlations in spinal cord injuries
(methodical study). Rozhl. chir. 43 no.10:658-662 C '64.

1. Neurochirurgická klinika (prednosta prof. dr. E. Petr),
Ustav soudního lékařství (prednosta doc. dr. J. Beran),
lékarské fakulty Karlovy University v Hradci Králové.

MADYORNIKOVA, H.; TUREK, J.; SCHUCK, O.

Effect of polythiazide on renal excretion of electrolytes.
lek. obsl. 34 no.7:182-185 19 F'65.

1. Vyzkumny ustav experimentalni terapie v Praze (vedl. prof. dr. O. Smanel, DrSc.) a I. interní oddělení Thomáše v Praze (vedl. MUDr. J. A. Trojka).

CZECHOSLOVAKIA

UDC 616.61-072.7-053.8/.9

NADVORNIKOVA, H.: 1st Internal Department, Thomayer's Hospital
(I. Interni Oddeleni Thomayerovy Nemocnice), Prague - Krc, Head
(Primar) Dr J. TROJAN.

"The Diluting Activity of the Kidneys in Adults and in Old Age."

Prague, Casopis Lekaru Ceskych, Vol 105, No 42, 21 Oct 66, pp
1149 - 1151

Abstract [Author's English summary]: The diluting function of
the kidneys decreases with advancing age. The minimum value
of the specific weight of the urine (adjusted to 15°C) after re-
ceiving 20 ml of water per kg of body weight is 1.003 or less in
persons under 50, and 1.005 or less in people over 50. The speed
of the excretion of a water load also decreases with advancing age.
2 Figures, 3 Tables, 3 Western, 1 Czech reference. (Manuscript received Oct 65).

1/1

BABOV, D.M., dotsent; NADVORNYI, N.N.; CHUSOV, Yu.N.

Detection and survival of pathogenic serotypes of Escherichia coli in sewage and in soil. Vrach. delo no. 8:133-134 Ag'63.

(MIRA 16:9)

1. Kafedra obshchey gigiyeny (zav. - prof. A.F.Stoyanovskiy)
Odesskogo meditsinskogo instituta.

(ESCHERICHIA COLI)

NADVORNYI, V., aspirant

Ladybugs damage apricots. Zashch. rast. ot vred. i bol.
10 no.8:44 '65. (MIRA 18:11)

1. Moskovskiy gosudarstvennyy universitet.

NADVORNYY, Vladimir Petrovich; GLADKOV, V.A., red.; BARANOV, I.A., tekhn.
red.

[We struggle for big fish catches] V pokhode za vysokie ulovy. Murmansk,
Murmanskoe knizhnoe izd-vo, 1960. 27 p. (MIRA 14:11)
(Kola Peninsula--Fisheries)

NAIVORYUK, V. (Dzerzhinsk, Zhitomirskaya oblast')

Last cigarette. Pozh.delo 7 no.10:30 0 '61.
(Theaters—Fires, and fire prevention)

(MIRA 14:10)

CZAYKOWSKI, Leszek E.; TRZECIAK, Wanda; NADWORNA, Hanna

Analysis of 30 cases of Perthe's disease (diagnostic errors in tuberculosis of the hip). Gruslica 28 no.7:527-534 J1 '60.

1. Z Sanatorium Gruslicy Kostno-Stawowej w Otwocku Dyrektor: dr med. J.Sowinski.

(TUBERCULOSIS, OSTEOARTICULAR diag.)

(OSTEOCHONDritis diag.)

(HIP dis.)

SAPER, Jerzy; TETER, Jerzy; JANCZEWSKI, Zygmunt; NADWORNY, Jerzy

Endocrinological similarity between myotonia congenita and dystrophia myotonica. Preliminary communication. Neur.&c.polska 10 no.6:777-786 '60.

1. Z Kliniki Neurologicznej A.M. w Warszawie p.o. Kierownika: prof. dr med. I.Hausmanowa-Petrusewicz. Z Poradni Endokrynologicznej w Warszawie, Kierownik: doc. dr med. J.Teter. Z I Kliniki Położnictwa i Chorob Kobiety A.M. w Warszawie, Kierownik: prof. dr med. T.Bulski.

(MYOTONIA CONGENITAL diag)

(MYOTONIA ATROPHICA diag)

TETER, Jerzy; WIGURA, Aleksander; NADWORNY, Jerzy; JANCZEWSKI, Zygmunt

Congenital adrenal dysplasia in a female with signs of pseudhermaphroditis (adrenal virilism). Endokr. pol. 12 no.5:531-542 '61.

1. Poradnia Endokrynologiczna w Warszawie Kierownik: doc. dr J.Teter
Klinika Urologiczna AM w Warszawie Kierownik: prof. dr T.Wesolowski
I Klinika Poloznictwa i Chorob Kobietych AM w Warszawie Kierownik:
prof. dr T. Bulski.

(ADRENAL GENITAL SYNDROME case reports)

WECEWICZ, Grazyna; NADWORNY, Jerzy

Synopen therapy of pruritus vulvae. Polski tygod. lek. 16 no.6:
212-213 6 F '61.

1. Z Poradni Endokrynologicznej w Warszawie; kierownik: doc. dr
med. J. Teter.

(ANTIHISTAMINICS ther) (PRURITUS ther)
(VULVA dis)

1. Nazwa: WILKINIA-GRTEGRZOLKA Maria: NADWIEDY.

2. Adres: ul.
... ..

3.
... ..
... ..
... ..
... ..

TOMASZEWSKI, Leszek, dr. med.; NADWOJNY, Jerzy; ZNUDEKA, Barbara

Vitamin B-12 and sterility. Pol. tyg. lek. 19 no.50:1115-1118
14 D '64

1. Z Laboratorium Zespołu Klinik Dziecięcych Oddziału Pediatrycznego Akademii Medycznej w Warszawie (Kierownik: dr. med. Leszek Tomaszewski) i z II Kliniki Położnictwa i Chorob Kobiety Akademii Medycznej w Warszawie i Poradni Endokrynologicznej (Kierownik: prof. dr. med. Ireneusz Roszkowski).

1. The first of the two main parts of the report is a description of the current state of the art in the field of the study of the effects of the environment on the human body. This part is divided into two main sections: the first section deals with the effects of the environment on the human body in general, and the second section deals with the effects of the environment on the human body in specific cases. The second part of the report is a description of the methods used in the study of the effects of the environment on the human body. This part is divided into two main sections: the first section deals with the methods used in the study of the effects of the environment on the human body in general, and the second section deals with the methods used in the study of the effects of the environment on the human body in specific cases.

CHERNOMOREDIKOV, V.V.; NAD"YAPNAYA, J.F.

Food protein as an ecologic and physiological factor. Biol.
MOIP.Otd.biol. 67 no.4:140-141 J1-Ag '62. (MIFA 15:10)
(PROTEINS) (ANIMALS, FOOD HABITS OF)

CHERNOMORDIKOV, V.V.; Prinimali uchastiye: BESPALOVA, I.; NAD"YARNAYA, N.;
TOKOREVA, T.; MAMATKINA, E.

Atmospheric humidity as an ecologico-physiological factor. Sov. L.
AN SSSR 140 no.4:935-937 O '61. (MIRA 14:9)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
Predstavleno akademikom I.I.Shmal'gauzenom

(~~HUMIDITY~~...PHYSIOLOGICAL EFFECT)

NAD*YARNAYA, N. F.

Effect of red and orange rays on the gas exchange in birds.
Nauch. dokl. vys. shkoly; biol. nauki no.3:66-68 '62.
(MIRA 15:7)

1. Rekomendovana kafedroy zoologii pozvonochnykh Moskovskogo
gosudarstvennogo universiteta im. M. V. Lomonosova.

(LIGHT--PHYSIOLOGICAL EFFECT) (RESPIRATION)
(BIRDS--PHYSIOLOGY)

NAD"YARNAYA, N.F.

Effect of light of the constant spectral composition on
the gas exchange in birds. Ornitologiya no.6:477 '63.
(MIRA 17:6)

NADYBAIDZE, I.; GONCHARENKO, V.

This is only the beginning! Okhr. truda i sots. strakh. 3 no.9:
34-36 S '60. (MIRA 14:4)

1. Predsedatel' zavkoma Ordzhonikidzevskogo steklotarno-izolyatornogo zavoda (for Nadybaidze). 2. Starshiy inzhener po tekhnike bezopasnosti Ordzhonikidzevskogo steklotarno-izolyatornogo zavoda (for Goncharenko).

(Ordzhonikidzevskiy District--Glass manufacture--Hygienic aspects)

KHOKHLOV, V.K.; PRUDNIKOV, I.A.; V'YALITSYN, V.A.; NADYBIN, A.I.

Experimental testing of a model of the bunching section of a
50 Mev. linear electron accelerator. Elektrofiz. app.
no.2:104-114 '64. (MIRA 18:3)

L 00941-66 EWT(m)/EPA(w)-2/EWA(m)-2 IJP(c)

ACCESSION NR: AT5015936

UR/3092/65/000/003/0037/0045

AUTHOR: Vyalitsyn, V. A.; Nadybin, A. I.; Prudnikov, I. A.; Ryabtsov, A. V.
Smirnov, V. L.; Khokhlov, V. K.

TITLE: Investigation of the accelerating system of a 5-Mev linear accelerator

SOURCE: Moscow. Nauchno-issledovatel'skiy institut elektrofizicheskoy apparatury. Elektrofizicheskaya apparatura; sbornik statey, no. 3, 1965, 37-45

TOPIC TAGS: electron accelerator, 5 Mev linear accelerator

ABSTRACT: The results of testing an experimental model of the 5-Mev linear electron accelerator which is intended for beta and gamma therapy are reported. The accelerating system is made in the form of a 2338.3-mm long septate waveguide operating at $\pi/2$ mode. The initial 767-mm long section of the waveguide has variable dimensions so that the phase velocity and field-strength amplitude can be continuously varied to ensure a high capture coefficient. These measured

ard 1/2

L 00941-66

ACCESSION NR: AT5015936

0

characteristics are presented: energy and accelerated-beam energy-spectrum width vs. frequency (maximum energy, around 2798.6 Mc); ratio of accelerated-particle current to injection current (capture) vs. frequency (80% corresponds to about 2800 Mc); energy, energy-spectrum width and capture vs. r-f power; same quantities vs. injection current; energy and energy-spectrum width vs. injection current; energy and energy-spectrum width vs. injection voltage. The energy spread of electrons at the spectrum half-height is $\pm 5\%$ or less; the average current of accelerated electrons, 70 μ a. Orig. art. has: 10 figures and 1 formula.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: NP

NO REF SOV: 002

OTHER: 000

Card 2/2 *DP*

FOGEL', Ya.M.; NADYKTO, B.T.; RYBALKO, V.F.; SLABOSPITSKIY, R.P.;
KOROBCHANSKAYA, I.Ye.

Possibility of using secondary ion-ion emission phenomena
in studying heterogeneous catalytic reactions. Dokl.
AN SSSR 147 no.2:414-417 N '62. (MIRA 15:11)

1. Khar'kovskiy gosudarstvennyy universitet im. A.M. Gor'kogo.
Predstavleno akademikom A.N. Frumkinym.
(Catalysis)
(Ionization of gases)

FOGEL', Ya.M.; NADYKTO, B.T.; RYBALKO, V.F.; SHVACHKO, V.I.; KOROBCHANSKAYA,
I.Ye.

Study of the catalytic oxidation of ammonia on platinum by the
secondary ion emission method. Kin. i kat. 5 no.3:496-504 My-
Je '64. (MIRA 17:11)

1. Khar'kovskiy gosudatstvennyy universitet imeni Gor'kogo.

FOGEL', Ya.M.; NADYKTO, B.T.; SHVACHKO, V.I.; RYBALKO, V.F.; KOROBCHANSKAYA,
I.Ye.

Use of the secondary ion emission method for investigating
catalytic reactions between ammonia and nitric oxide, and the
decomposition of nitric oxide on platinum. Kin. i kat. 5
no.5:942-544 S-O '64. (MIRA 17:12)

1. Khar'kovskiy gosudarstvennyy universitet imeni Gor'kogo.

L 23051-65 EWG(j)/EWT(m)/EPF(c)/EPR/EPW(t)/EWP(b) Pr-4/Ps-4 IJP(c)

ACCESSION NR: AP4047980

JD

S/0076/64/038/010/2397/2402 2

AUTHOR: Fogel', Ya. M. (Khar'kov); Nadykto, B. T. (Khar'kov); Shvachko, V. I. ^B
(Khar'kov); Rybalko, V. F. (Khar'kov)

TITLE: Secondary ion emission investigation of the state of oxygen adsorbed on
a silver surface ²⁷

SOURCE: Zhurnal fizicheskoy khimii, v. 38, no. 10, 1964, 2397-2402

TOPIC TAGS: secondary oxygen ion emission, oxidation mechanism, silver oxidation catalyst, negative oxygen ion, positive oxygen ion

ABSTRACT: In order to study the mechanism of the oxidation process on a metallic catalyst (silver catalyst used in ethylene oxidation) the state of the oxygen adsorbed on the surface was determined. The mass spectra of the secondary positive and negative ions formed by bombarding a silver ribbon with a primary beam of argon ions in an oxygen atmosphere were studied. The dependence of the intensity of the mass spectral lines on the oxygen pressure and the ribbon temperature was determined. In the 20-500C range the oxygen adsorbed on the silver surface was partly atomic and partly molecular, and some of the molecular oxy-

Card 1/2

L 23051-65

ACCESSION NR: AP4047980

2

gen was in the state of a negative molecular ion O_2^- . The state of the charge of the atomic oxygen was not determined. At temperatures above 300C the effect of the oxides on the silver surface on the secondary emission of oxygen ions was insignificant; the latter were formed only from oxygen adsorbed on the silver surface. Below 300C the surface oxides could be involved in the secondary emission of oxygen ions, but apparently to only a small extent. Thus if the oxygen in the surface oxides on the silver plays a significant role in catalytic oxidation reactions, the activity of the silver catalyst will drop at temperatures above 300C. "In conclusion we wish to sincerely thank prof. A. K. Val'ter for constant advice and interest in the work." Orig. art. has: 3 figures and 3 equations.

ASSOCIATION: Khar'kovskiy gosudarstvenny*y universitet im. A. M. Gor'kogo
(Kharkov State University)

SUBMITTED: 17Oct63

ENCL: 00

SUB CODE: GC, NP

NO REF SOV: 005

OTHER: 002

Card 2/2

FOGEL', Ya.M.; NADYKTO, B.T.; SHVACHKO, V.I.; RYBALKO, V.F.;
KOROBCHANSKAYA, I.Ye.

Catalytic oxidation of ammonia on platinum studied by the method
of secondary ionic emission. Dokl. AN SSSR 155 no.1:171-174 Mr
'64. (MIRA 17:4)

1. Khar'kovskiy gosudarstvennyy universitet im. A.M.Gor'kogo.
Predstavleno akademikom A.N.Frumkinym.

46183-65 EWT(1)/EWT(m)/EPA(sp)-2/EPF(c)/EWA(d)/EPA(w)-2/EEG(t)/EWP(t)/
P(b) Pab-10/Pr-4/PeB IJP(c) JD/WB/WB/AT
CESSION NR: AP5010839

UR/0020/65/161/004/0886/0888

THOR: Shvachko, V. I.; Nadykto, B. T.; Fogel', Ya. M.; Garger, K. S.;
Andrat'yev, V. N.

TITLE: The use of secondary ion emission for investigation of corrosion processes
the surface of steel

SOURCE: AN SSSR. Doklady, v. 161, no. 4, 1965, 886-888

PIC TAGS: secondary emission, steel surface oxidation, iron pentacarbonyl,
ferric oxide, ferrous hydroxide, argon ion beam, steel corrosion

ABSTRACT: The article presents preliminary results of a study of the processes
occurring on the surface of steel during heating in a vacuum (5×10^{-6} mm Hg) and
oxygen (1×10^{-4} mm Hg), carried out with the aid of secondary ionic emission.
The source of secondary ion emission was a steel strip $20 \times 4 \times 0.1$ mm containing
(%) 0.39% C, 0.45% Mn, 0.28% Cr, 0.016% P and <0.01% Si. The primary beam was
made up of Ar⁺ ions accelerated to 20 kev. Curves for the intensity of the various
secondary ions versus the temperature of the steel strip are given. The formation

rd 1/3

46183-65

ACCESSION NR: AP5010839

2

ferric oxide on the steel surface is due to oxygen in the residual gas. However at oxygen pressures higher than $2 \cdot 10^{-5}$ mm Hg there is no increase in the intensity of the Fe_2O_3^+ ion beam, and therefore no increase in the oxide coating on the steel surface. In the 20-500° range, the rate of decomposition of ferric oxide increases with temperature more rapidly than the rate of oxide formation, which reduces the oxide coating. In the 500-800° range this situation is reversed and the oxide coating increases. The formation of $\text{Fe}(\text{OH})_2$ is considered in relation to the pressure of water vapor. The coating of the surface with $\text{Fe}(\text{CO})_5$ increases monotonically above 200°. A definite part in the mechanism of formation of iron pentacarbonyl is played by the carbon present in the steel; the oxidation of carbon may constitute the first stage of formation of the pentacarbonyl. If such is the case, the formation and evaporation of $\text{Fe}(\text{CO})_5$ should lead to the decarburization of steel. "We consider it our pleasant duty to thank Prof. A. K. Il'ter for a steady interest in this work." Orig. art. has: 3 figures.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet im. A. M. Gor'kogo (Kharkov State University)

ard 2/3

6183-65

SESSION NR: AP5010839

MITTED: 20Jul64

ENCL: 00

SUB CODE: MM

REF SOV: 007

OTHER: 000

mt
3/3

58872-65 EPF(c)/EPF(n)-2/EPR/EWG(j)/EPA(w)-2/EWT(1)/EWT(m)/EWP(b)/EPA(sp)-2/
P(t) Pr-4/Pr-4/Pu-4/Peb IJP(c) AT/JD/JG

CESSION NR: AP5017281

UR/0181/65/007/007/1944/1951

THOR: Shvachko, V. I.; Nadykto, B. T.; Fogel', Ya. M.; Vasyutinskiy, B. M.;
rtmazov, G. N.

FILE: Using secondary ion-ionic emission for studying the interaction of oxygen
with the surface of niobium

SOURCE: Fizika tverdogo tela, v. 7, no. 7, 1965, 1944-1951

IC TAGS: ion emission, niobium, oxidation

TRACT: The method of secondary ion-ionic emission was used to investigate the
composition of oxides which form on the surface of niobium when it interacts with
oxygen. It was established that in the temperature range from 20 to 1200°C the fol-
lowing oxides form on the surface of niobium which is in an oxygen atmosphere at a
pressure of approximately 10^{-4} mm of mercury: NbO , NbO_2 , Nb_2O_3 , and Nb_2O_5 . In the
temperature interval from 1200 to 2000°C the surface of Nb contains only NbO and
 O_3 . The corrosion wear of Nb results from the formation and subsequent evapora-
tion of NbO starts at 1400°C and then increases very rapidly with temperature. In
the 20-800°C temperature range NbO_2 undergoes decomposition according to the reac-
tion: $NbO_2 \rightarrow NbO + O$ with the desorption of oxygen into a gaseous phase. "In conclu-

1/2

8872-65

SESSION NR: AP5017281

2
n, we are sincerely grateful to A. K. Val'ter for his constant interest in the
k." Orig. art. has: 4 figures.

OCIATION: Khar'kovskiy gosudarstvennyy universitet im. A. M. Gor'kogo (Kharkov
te University)

MITTED: 27Nov64

ENCL: 00

SUB CODE: GC,MM

REF SOV: 003

OTHER: 001

2/2

1-3/1
S/C57/62/032/003/008/019
B108/B104

26.2321
AUTHORS: Demirkhanov, R. A., Khodyrev, Yu. S., Romashko, N. D., and
Nadykto, B. T.

TITLE: Discharge induced by electromagnetic travelling wave

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 3, 1962, 313-321

TEXT: The authors studied the parameters of an electrodeless pinched discharge induced by standing and travelling electromagnetic waves in a toroidal 10 cm wide discharge tube. The experimental arrangement is shown in Fig. 1. The power of the h. f. tube generator could be varied continuously from 0 to 10 kw, its frequency from 0.8 to 4 Mcps. Charged particle concentration, electron temperature and space potential were measured with probes. Pinched discharges were observed in Xe, Kr, Ar, He, O₂, N₂, and H₂. The particle concentration from the center of the pinch discharge to the wall decreases more rapidly than would follow from diffusion theory of the positive column. It was found that the minimum diameter of the pinch for all powers of the discharge is reached at a
Card 1/32

Discharge induced by electromagnetic ...

3/057/62/032/003/008/019
B108/B104

0.02 mm mercury head. The pinch broadens with increasing pressure at powers greater than 200 w and also with increasing power at pressures above 0.03 mm Hg. Up to a certain pressure, electron concentration rises, but it decreases again when pressure is further increased. A monotonous increase of the electron concentration with power was established.

Electron temperature was between $3 \cdot 10^4$ and $6 \cdot 10^4$ °K. The pinching of the discharge plasma is determined essentially by the r-component of the electric field of the wave which, through the non-diffusional departure of electrons from the plasma to the wall, increases the negative potential (with respect to the plasma) of the wall. V. P. Volkov is thanked for assistance. There are 13 figures and 14 references: 6 Soviet and 7 non-Soviet. The four most recent references to English-language publications read as follows: E. R. Harrison. J. of Electr. a. control, 5, 4, 5, 1958; T. H. Y. Young, J. Soyers. Proc. Phys. Soc., 70, no. 45113, 663, 1957; H. A. H. Boot a. R. B. R. Shersby-Harvie. Nature, 18, 1187, 1957; H. A. H. Boot et al. J. of Electr. Control, 4, no. 5, 434, 1958.

SUBMITTED: December 17, 1960
Card 2/3

NADYMIHALY, F.

[illegible]

100

Experiment	Experimenters	Experiment Title
1	James H. ...	Foliar Top-Dressing
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100

Experiments in foliar top-dressing of sugarcane, carried out at various points in the field, showed that spraying with urea gives the best effect. The two-fold spraying - 15 days after flowering and before ripening of the fruit - with a 1% solution of urea led to a 10% increase in the harvest yield of the early-leaving sort, a 15 - 20% increase of maturity, a 10% increase of the sugar obtained; the sugar content was 1% increased in the late-leaving sort.

SHVARTS, A.L., kand.tekhn.nauk; DIK, E.P., inzh.; DUDNIKOVA, I.P., inzh.;
NADYROV, I., inzh.

Study of transient processes in a once-through type boiler with supercritical parameters. Teploenergetika 10 no.4:35-41 Ap '63.
(MIRA 16:3)

1. Vsesoyuznyy teplotekhnicheskii institut.
(Boilers)

AK, E.P., Inzh.; NADYOV, I.I., Inzh.; MAN'INA, N.N., kand. tekhn. nauk

Study of the zone and magnitude of deposits in a boiler with
supercritical parameters. Teploenergetika 11 no. 11-12-1964, 1964.
(MIRA 11-12)

1. Vsesoyuznyy teplo tekhnicheskii institut.

NADYROV, S.A.

Dynamics of cattle infestation by bloodsucking ticks in Tashkent
Province. Vop.biol.i kraev.med. no.3:190-196 '62.

(MIRA 16:3)

(TASHKENT PROVINCE—TICKS)
(TASHKENT PROVINCE—PARASITES—CATTLE)

SOV/117-58-12-26/36

AUTHORS: Tuyev, V.S. and Madyrov, U.G., Engineer

TITLE: Some Problems of Mechanization of Boiler Production (Nekotoryye voprosy mekhanizatsii kotel'nogo proizvodstva)

PERIODICAL: Mashinostroitel', 1958, Nr 12, p 35 (USSR)

ABSTRACT: Information is given on deficiencies existing in the production of parts at the Tambov Plant of Chemical Machine Building. The supply of flanged and elliptic bottom parts from other plants entails considerable difficulties, cost, etc, and production at the plant itself is only possible by manual processes. Tests carried out to introduce mechanized production were unsuccessful, due to the lack of machine tools. It is requested to supply plants making chemical equipment with the necessary machine tools to improve the quality of the manufactured parts and to reduce production costs.

ASSOCIATION: Tambovskiy zavod khimicheskogo mashinostroyeniya (Tambov Plant of Chemical Machine Building)

Card 1/1

Lai Ya Wai, G.G.

Effect of various methods of specific treatment on clinical
and bacteriological indices in dysentery. *Ann. Inst.
goc. med. inst.* 14:495-496 '62. (8) 111

1. Kafedra detskikh infektsiy (adv. - prof. V.I. Pudovkin)
Kazanskogo meditsinskogo instituta.

DOBRODEYEV, A. N.; OFITSEROV, B. S.; KALININ, Yu. V.; NADYRSHIN, R. I.

Problems of the technology of manufacturing keramzit concrete
slabs in the Uzbek S.S.R. Sbor. nauch. trud. NII po stroi.
ASIA no.2:36-44 '61. (MIRA 16:1)

(Uzbekistan—Keramzit)
(Lightweight concrete)

IVANOV, N.I., kand.tekhn.nauk; KULAKOV, A.M., inzh.; SHAKHLIN, V.I., inzh.;
GAZHUR, F.G., inzh.; NADYRSHINA, L.S., inzh.; TVILINEV, F.Ya., inzh.

Flame stands for the investigation of thermal processes in furnaces.
Stal' 22 no.8:759 Ag '62. (MIRA 15:7)

1. Magnitogorskiy metallurgicheskiy kombinat.
(Metallurgical furnaces--Combustion)
(Heat--Transmission)

YSEV, V. S. (Engineer)

Calculation of Storm-Sewer and General-Flow Sewer Systems According to the
tical High-Water Areas." Cand Tech Sci, Moscow Order of the Labor Red Banner
struction Engineering Inst imeni V. V. Knybyshev, 4 Jan 55. (VM, 24 Dec 54)

vey of Scientific and Technical Dissertations Defended at USSR Higher Educational
stitutions (12)

SUM No. 556, 24 Jun 55

NADYSEV, Vasil'y Semenovich; GANICHEVA, Nina Vasil'yevna; MAKAROVA,
Lidia Aleksandrovna; SOKOL'SKIY, I.P., redaktor; PETROVSKAYA, Ye.,
tekhnicheskiiy redaktor.

[Collection of graphs for hydraulic calculations of sewage
collectors, pressure pipelines and conduits] Sbornik grafikov
dlia gidravlicheskogo rascheta kanalizatsionnykh kollektorov,
napornykh truboprovodov i kanalov. Izd. 2-oe, dop.i perer.
Moskva, Izd-vo Ministerstva kommunal'nogo khoziaistva RSFSR,
1955. 95 p. of graphs. (MIRA 9:3)
(Sewerage)

NADYSEV V.

SSR /Chemical Technology. Chemical Products
and Their Application
Water treatment. Sewage water.

U-5

bs Jour: Referat Zhur - Khimiya, No 1, 1958, 1751

uthor : Nadysev V.

itle : Regulating Settling Tanks

rig Pub: Zhil.-kommun. kh-vo, 1957, 5, 21-23

bstract: To ensure uniform operation of purification units
and an efficient utilization of their capacity,
it is proposed to utilize regulating settling
tanks (RS). Uniform discharge of sewage water
from the RS is effected by means of a movable
trough with a flexible discharge device. The
precipitate deposited in the septic portion of
the RS is removed by hydrostatic pressure during

ard 1/3

SSR /Chemical Technology. Chemical Products
and Their Application
Water treatment. Sewage water.

H-5

bs Jour: Referat Zhur - Khimiya, No 1, 1953, 1751

the hours of maximum filling. Volume of RS is determined according to the schedule of hourly inflow and the magnitude of hourly discharge. The longest duration (hours) of the stay of sewage water is determined by means of the formula:
 $t_p = W_p/q$, where W_p -- volume of RS, in m^3 ; q -- rate of flow of discharged sewage water, in m^3 /hour. Minimum filling h_m (m) is determined by means of the formula: $h_m = 100 Q/b$, wherein b -- width of RS, in m; Q -- rate of flow of sewage water during the hours of minimum filling, in m^3 /second. The length L of the RS, derived by calculations, is checked on the basis of the precipitation of coarsely dispersed admixtures at the different degrees of filling: $L = Vh_m/u_o$,

rd 2/3

SSR /Chemical Technology. Chemical Products
and Their Application
Water treatment. Sewage water.

II-5

bs Jour: Referat Zhur - Khimiya, No 1, 1958, 1751

where U_0 -- precipitation velocity, in m/second
(tentatively $U_0 = 0.0004$ m/second, which corre-
sponds to a retention of 67.5% of coarsely dis-
persed admixtures); $V = 0.01$ m/second. Under
these conditions the minimum length will be:
 $L = 0.01 \cdot 100 Q / 0.004 b = 2500 Q/b$, m. An
example of the calculations is given.

ard 3/3

NADYSEV, V.S. (Leningrad)

Divided-flow sewage pumping station. Vod. i san. tekhn. no.5:11-13
My '61. (MIRA 14:6)

(Pumping stations)
(Sewerage)

NADYUK, I.

Seventy out of a hundred workers submit suggestions. Sov.
profsoiuzy 7 no.20:41 0 '59. (MIRA 12:12)

1. Predsdatel' komiteta profsoyuza tsekha normalay Lipetskogo
traktornogo zavoda.
(Lipetsk--Tractor industry--Technological innovations)

NADYUK, K.; PETROV, V.; IVANENKO, N.; KALPIN, G.; RUBLEVA, K.

Consider the characteristics of ~~agricultural~~ labor. Sots.trud
4 no.12:35-36 D '59. (MIRA 13:6)

1. Ispolnyayushchiy obyazannosti direktora i glavnyy agronom sovkhoha im. Lunacharskogo Stalinskoy oblasti (for Nadyuk).
 2. Glavnyy inzhener Beshevskogo sovkhoha Stalinskoy oblasti (for Petrov).
 3. Glavnyy zootekhnik Beshevskogo sovkhoha Stalinskoy oblasti (for Ivanenko).
 4. Rabotniki Ministerstva sel'skogo khozyaystva SSSR (for Kalpin, Rubleva).
- (Agriculture--Labor productivity)
(Hours of labor)

FAYERMAN, I.L.; CHERNYSHEVA, Ye.V.; NADZHAFAROV, A.A.; SARKISOV, A.M.

Protective coatings for sucker rods. Trudy AzNII DN no.6:200-210
'57. (MIRA 12:12)

(Sucker rods) (Protective coatings)

NADZHAFOV, A.D.

Course of anaerobic infection in experimental radiation sickness.
Azerb. med. zhur. no. 2:72-75 F '61. (MIRA 14:2)

1. Iz Instituta rentgenologii i radiologii Minzdrava Azerbaydzhan-
skoy SSR (direktor - dots. M.M. Alikishibekov).
(INFECTION) (RADIATION SICKNESS)

NADZHAFOV, A.S.,

Combined therapy in teniasis. Azerb.med.zhur. no.5:91-92
My' 58 (MIRA 11:6)

1. Iz terapevticheskogo otdeleniya (zav. otdeleniyem - kand.med. nauk A.S. Smakayev) Sumgait'skogo meditsinskogo ob'yedineniya (glavvrach - Sh.Z. Muradov).
(TAPEWORMS)
(QUINACRINE)

NADZHAFOV, A.S.

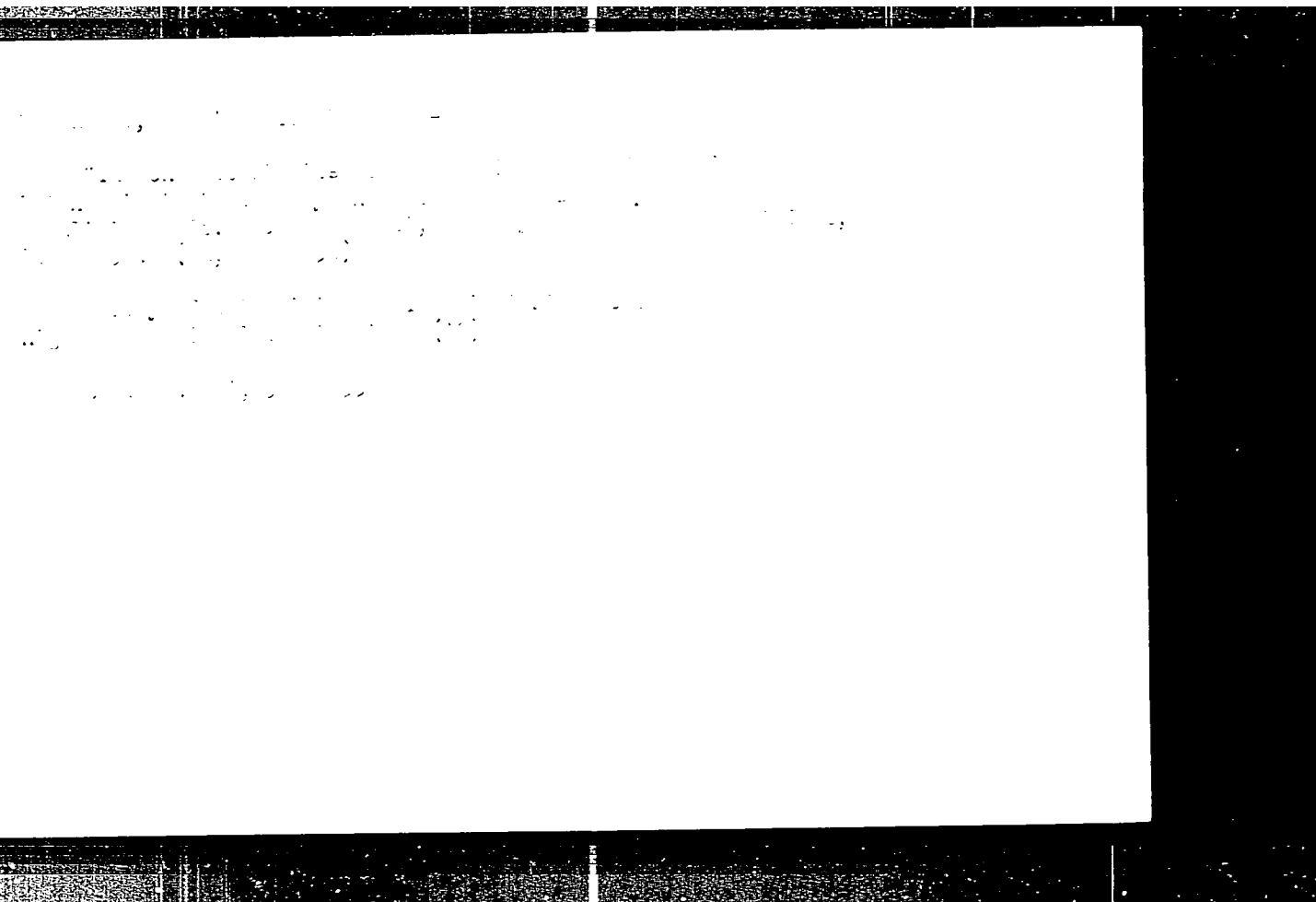
Influence of Istisu mineral water on the secretory activity of the
salivary glands. Azerb. med. zhur. no.6:56-62 Je '60.

(MIRA 14:1)

(ISTISU—MINERAL WATERS—PHYSIOLOGICAL EFFECT)
(SALIVARY GLANDS)

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R001135920006-4



APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R001135920006-4"

~~NADZHAFOV A.Yevgen~~

Cutaneous leishmaniasis in Barda (Azerbaijan) and its epidemiologic properties. Med. paraz. i paraz. bol. no.4:328-334 O-D '54. (MLRA 8:2)

1. Iz Instituta malyarii i meditsinskoy parazitologii Ministerstva zdravookhraneniya Azerbaydzhanskoy SSR (dir. instituta prof. M.R. Naxirov)

(LEISHMANIOSIS,
cutaneous, in Russia)

NADZHAFOV, ADIL'YUSIFOGLY.

2IN/5
100.1
.NI

FORMIROVANIYE I RAZVITIYE AZERBAYDZHANSKOY SOTSIALISTICHESKOY NATSII
(FORMATION AND DEVELOPMENT OF THE AZERBAIJAN SOVIET SOCIALIST NATION)
BAKU, IZD-VO AKADEMII NAUK AZERBAYDZHANSKOY SSR, 1955.

183 P.

AT HEAD OF TITLE: AKADEMIYA NAUK AZERBAYDZHANSKOY SSR, BAKU. INSTITUT
ISTORII I FILOSOFII.

ADDED T.P. IN AZERBAIJAN.

BIBLIOGRAPHICAL FOOTNOES.

BAGRAMYAN, M.G., TROFIMOV, G.K., NADZHAFOV, A.Yu., KASIMOV, A.A., DZHAFAROV, A.A.
KEVELIYEV, T.Kh.

Geographic malariological study in Azerbaijan as a basis for rational
antimalarial measures during a rapid decrease in the incidence of
malaria. Report No.1 [with summary in English]. Med.paraz. i paraz.
bol. 27 no.3:278-283 My-Je '58 (MIRA 11:7)

1. Iz Instituta malyarii i meditsinskoy parazitologii Ministerstva
zdravookhraneniya AzerSSR (dir. instituta A.A. Kasimov).
(MALARIA, prevention and control
geographic survey as indic. for control in rapid decrease
(Rus))

DZHAVADOV, R.B.; TAGIZADE, T.A.; NADZHAFOV, A.Yu.

Results of the Tashkent conference dedicated to the problems of liquidating diseases characteristic of countries with a hot climate. Azerb. med. zhur. no.1:78-82 Ja '62. (MIRA 16:5)
(TROPICS—DISEASES AND HYGIENE)

NADZHAFOV, A.Yu.

Visceral leishmaniasis in Azerbaijan and measures for its control.
Azerb. med. zhur. 42 no.2:48-54 P '65. (MIRA 18:7)

NADZHAFOV, Ch.

Case of a biliary-bronchial fistula. Azerb. med. zhur. 42
no.8:87-88 Ag '65. (MIRA 18:11)

NADZHAFOV, E.M.

Dissertation by E.M. Nadzhafov: "Examining a compressor gas as an object of automatic regulation." Izv. AN SSSR Otd. tekhn. nauk no. 3:1211 Ag '53.

(Mluda 5:8)

(Mechanics, Applied)

WADZIMOW, V. V.

WADZIMOW, V. V. -- "Lawyer's Union of the Soviet Republics and the
of Automatic Registration." Sovetskaya Pravda, 1970, 10/10/70, p. 1.
Tele. edition. Acad. Sci. U.S.S.R. (Information for the USSR)
Candidate in Law Sciences.

W: Podolskaya Moskva, 1970, 10/10/70, p. 1.

DD FORM 100-10

SSR/Processes and Equipment for Chemical Industries - Control and Measuring Devices.
Automatic Regulation, K-2

ost Journal: Referat Zhur - Khimiya, No 19, 1956, 64008

Author: Abdullayev, A. A., Nadzhafov, E. M.

Institution: None

Title: Procedure for Calculation of Spontaneous Vibrations in Pneumatic
Regulators

Original

Periodical: Avtomatika i telemekhanika, 1956, 17, No 3, 195-210

Abstract: A procedure has been worked out for an approximate calculation of
spontaneous vibrations in pneumatic regulators of O₄ type. Simpli-
fied models are proposed for the investigation of spontaneous vibra-
tions in these regulators.

ard 1/1